

MULTIPLE VOLTAGE INTEGRATED CIRCUIT AND DESIGN METHOD THEREFOR

ABSTRACT OF THE INVENTION

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An integrated circuit (IC) design, method and program product for reducing IC design power consumption. The IC is organized in circuit rows. Circuit rows may include a low voltage island powered by a low voltage (V_{ddl}) supply and a high voltage island powered by a high voltage (V_{ddh}) supply. Circuit elements including cells, latches and macros are placed with high or low voltage islands to minimize IC power while maintaining overall performance. Level converters may be placed with high voltage circuit elements.